What is a WIPE TEST?

- Collect contamination on the wipe material
- Samples are analyzed on laboratory equipment
- Always wear rubber gloves
- Use the proper wipe material and procedures
- Provide the proper paper work

Tritium Wipe Test

- Only way to detect tritium contamination
  - *Beta* energy is too weak to be detected with fielded radiac equipment
- Routine wipe tests are required quarterly
  - Maintenance and storage areas
- Anytime contamination is suspected
  - Indicated by any damage to devices containing tritium
  - Loss of illumination

Materials:

- **Rubber Gloves**
- **Scintillation Vials**
- **Metricel Filters**
- **Water**
  - Distilled water

    or
  - Water taken from outside the area

Procedures:

1. Draw a map of the area to be tested

Procedures:

WIPE TEST ANALYSIS REQUEST FORM

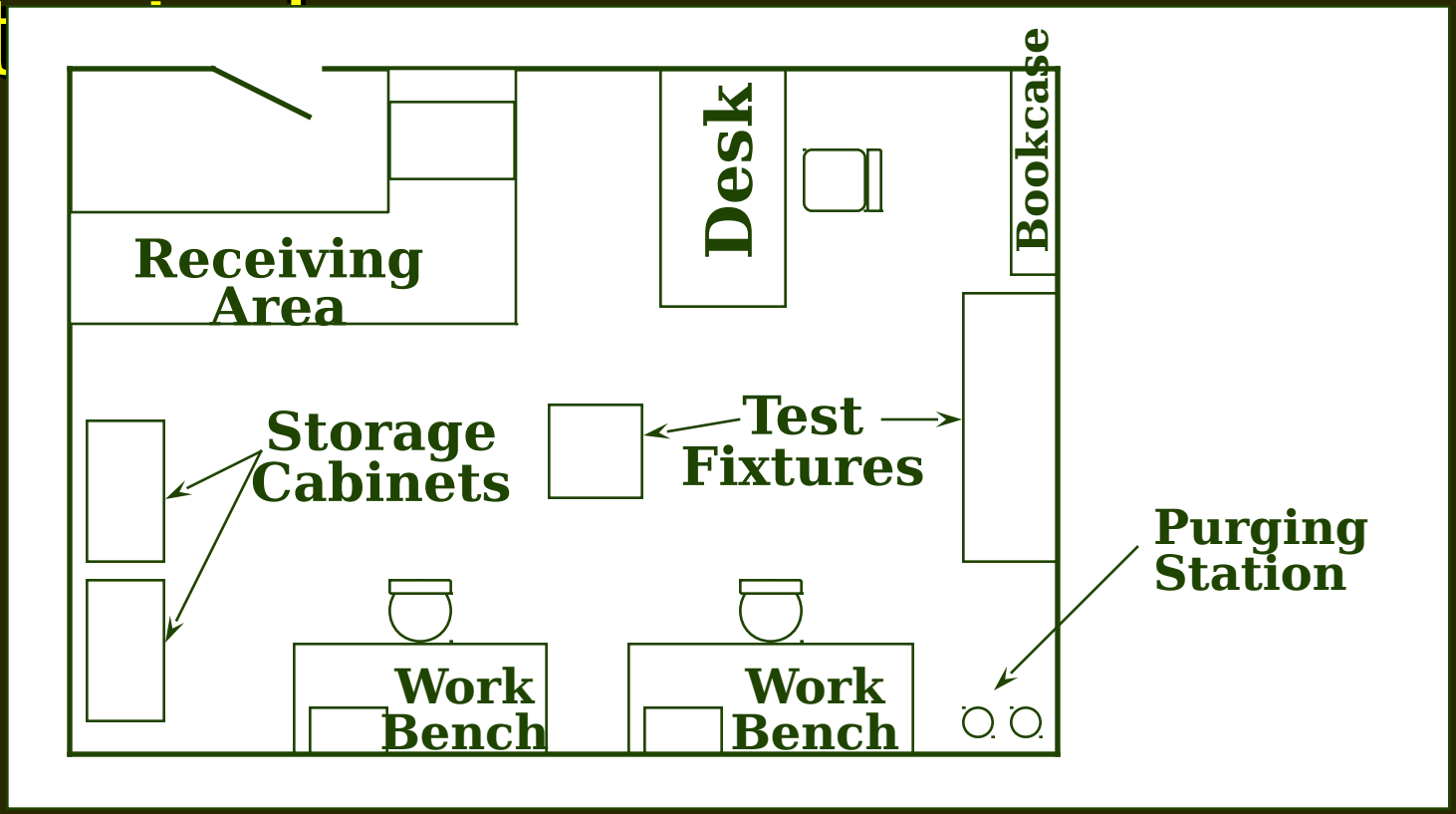
FROM (complete address):	TO: Rock Island Arsenal ATTN: SIORI-SEM-L (RIA-MSRTL) Rodman Ave., Bldg. 210, RM 407 Rock Island, IL 61299-5000
Surveyor's Name:	Phone (DSN/COM/FAX):
Post/Installation RPO:	Phone (DSN/COM):
Radionuclide (Circle One): H3 NI63 AM241 Other:	Date/Time:
Facility Building or Device(s) being tested:	Surveyor's Email:

Diagram of Facility Room and/or Location/Description of Device(s)	Sample No.	Description or Serial No.

COMMENTS:

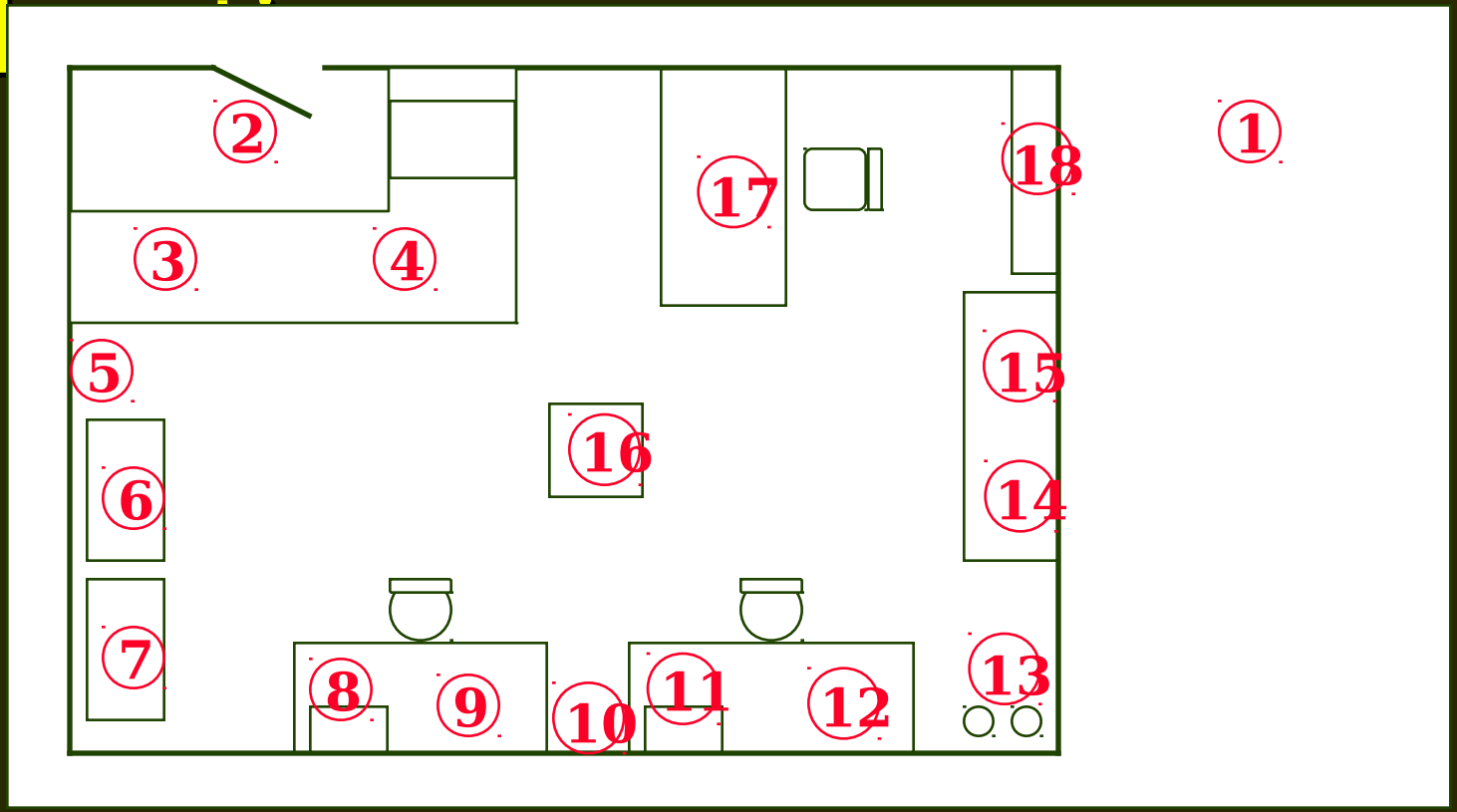
Procedures:

1. Draw a map of the area to be t



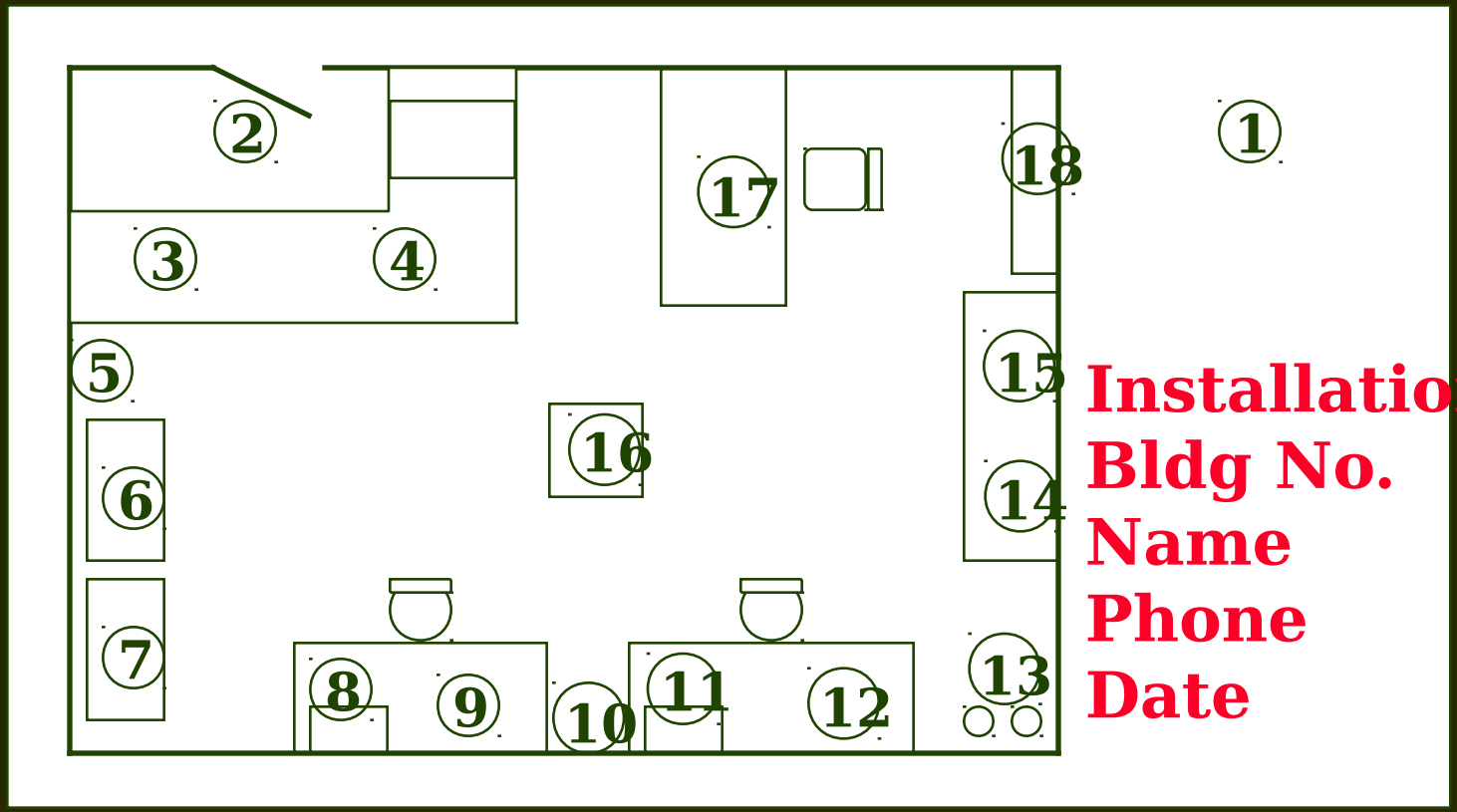
Procedures:

- Number the wipe sample l



Procedures:

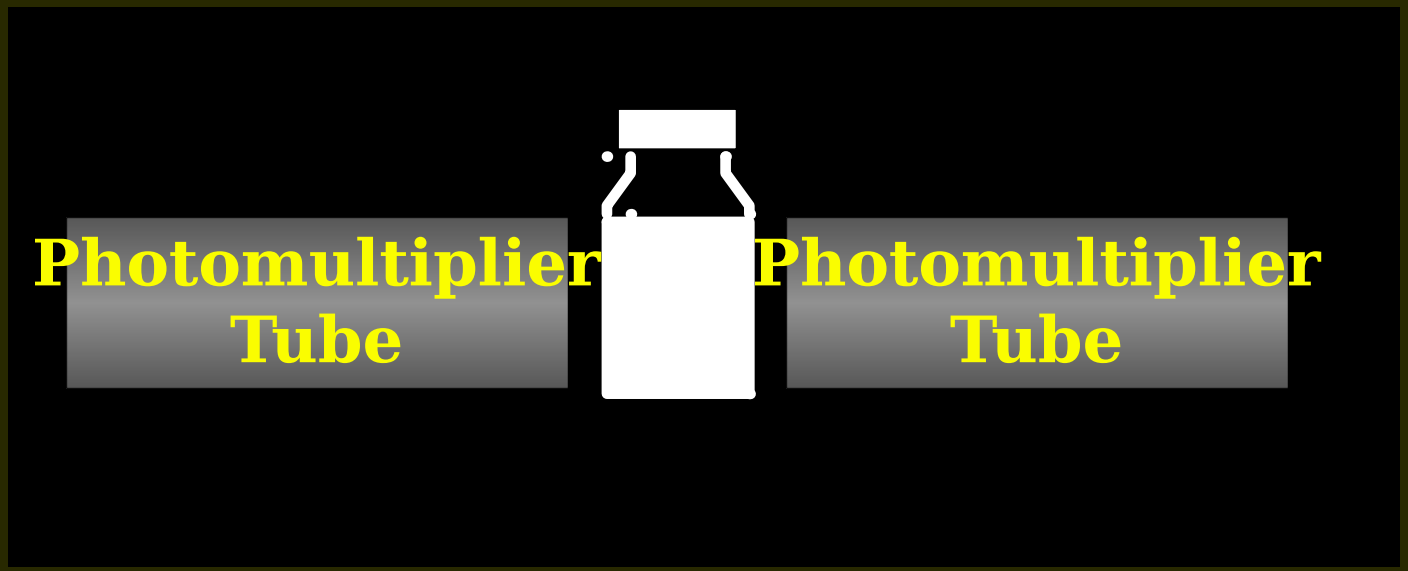
- Include:



Procedures:

1. Make a map
2. Put on gloves
3. Moisten Metricel filter
4. Wipe a 16 Sq. In. area (***100 Sq Cm***)
5. Put filter in scintillation vial
6. Add water
7. Put the cap on the vial
8. Label the vial - **ON THE LID**

Why on the Lid???



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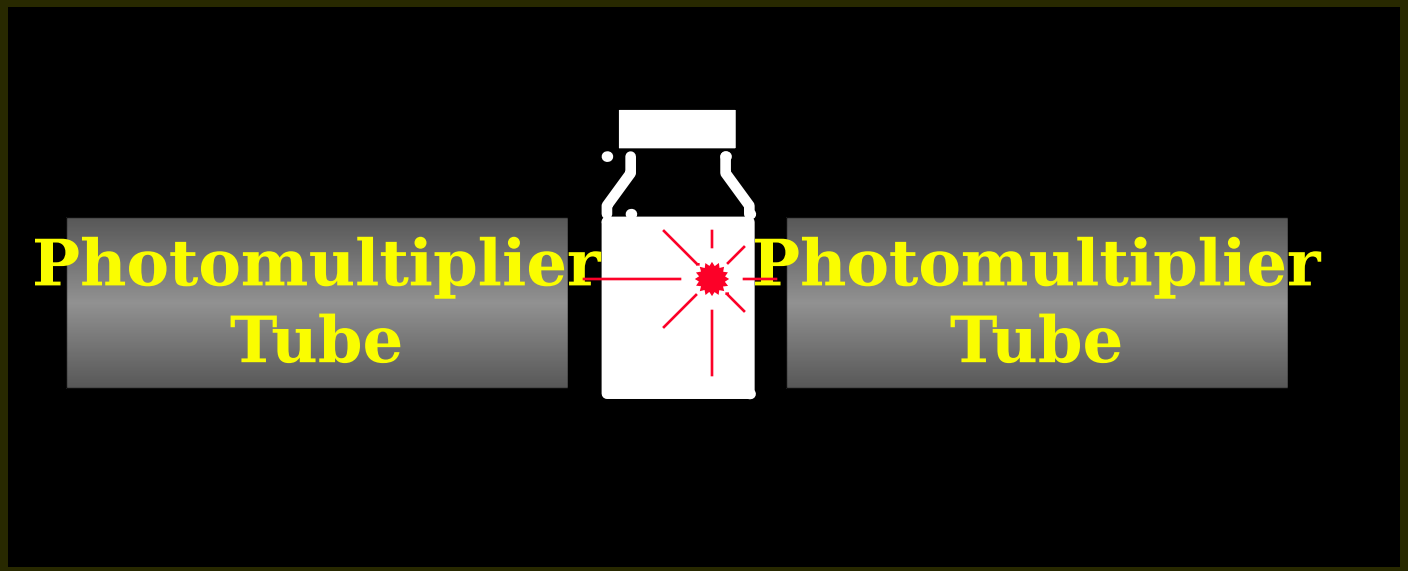
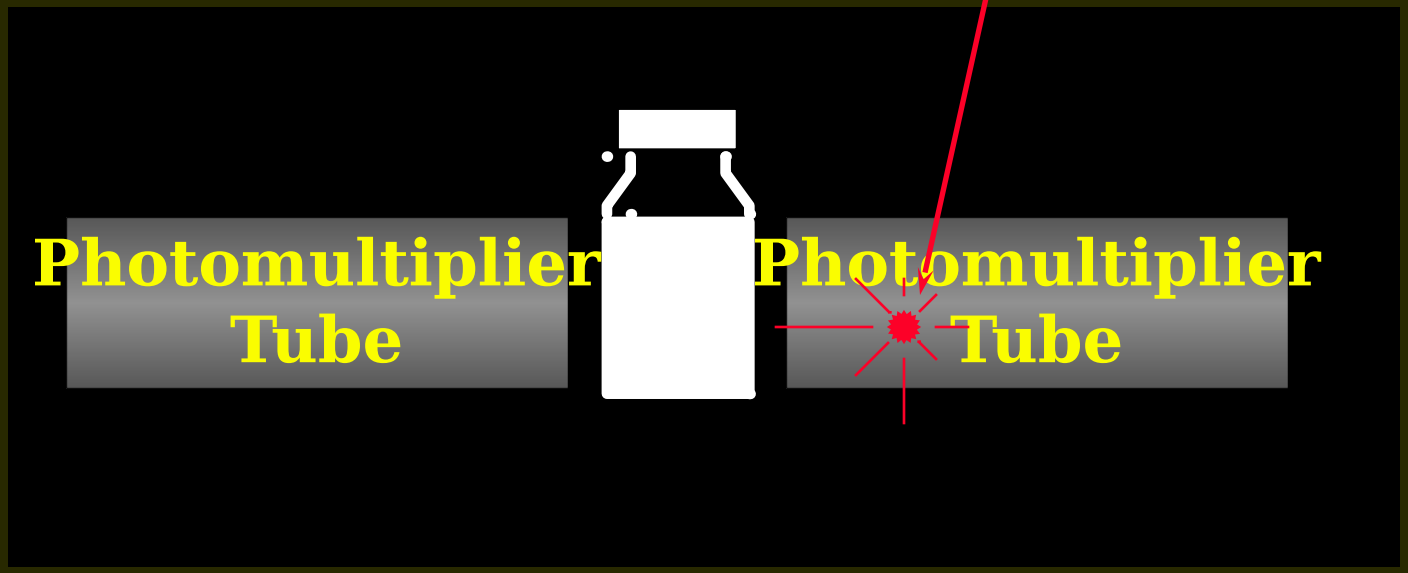


Why on the Lid???



CAM Wipe Test

- Looking for nickel-63 contamination caused by deterioration of drift tube module
  - Contamination will first appear where the air exits the CAM
- Annual testing required by NRC License
- Must be wipe tested prior to transfer if the date of the last wipe test was not within 6 months

Materials:

- Kraft paper
- Rubber gloves
- Test swipes (PAPER)
- Survey Form
- Wax pencil
- Scintillation vials
- Preference orientated packaging
- Radiac meter
  - AN/PDR-27, AN/VDR-2, or equivalent

Procedures:

1. Cover the work area with Kraft paper
2. Write information on survey form

Survey form:

M43A1/CAM WIPE TEST ANALYSIS REQUEST FORM

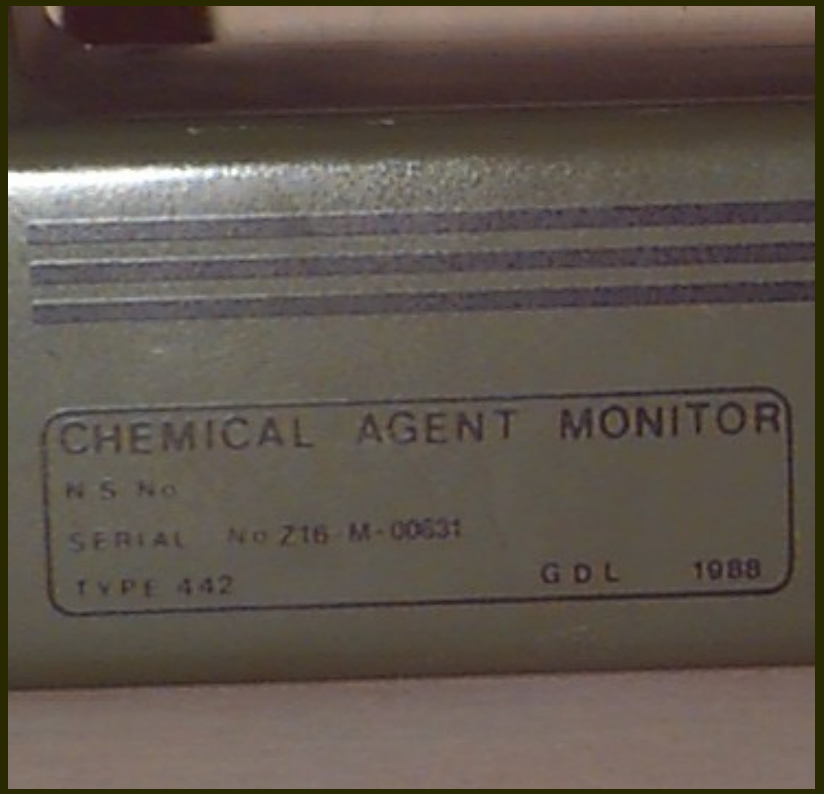
FROM (complete address):	TO: Rock Island Arsenal ATTN: SIORI-SEM-L (RIA-MSRTL) Rodman Ave., Bldg. 210, RM 407 Rock Island, IL 61299-5000
Surveyor's Name:	Phone (COM/DSN/FAX):
Post/Installation RPO:	Phone (COM /DSN):
Radionuclide (Circle One): NI63 AM241 Other:	Surveyor's Email:
Device(s) being tested:	Date/Time:
Activity Doing The Wipe (DODAAC):	Reporting Activity (DODAAC):

Sample No.	Owning Unit (DODAAC)	Serial No. of Drift Tube or Cell Assembly	Serial No. of CAM (Z16) or M43A1 (Z03)	TRAN *1	FAIL *2

Note: Indicate all zeros with a slash (⌀).
*1. Transaction Codes (AR 710-3): Wipe Test (W), Removal of source (X), Installation of source (Y).
*2. Place a check mark (X) if failure, i.e., radiac meter indicates a sustained elevated reading above twice background.

Procedures:

1. Cover the work area with Kraft paper
2. Write information on survey form



Procedures:

1. Cover the work area with Kraft paper
2. Write information on survey form
3. Put on rubber gloves

Procedures:

1. Cover the work area with Kraft paper
2. Write information on survey form
3. Put on gloves
4. Take sample

Procedures:

1. Cover the work area with Kraft paper
2. Write information on survey form
3. Put on rubber gloves
4. Collect wipe sample
5. Monitor the sample

Procedures:

1. Cover the work area with Kraft paper
2. Write information on survey form
3. Put on rubber gloves
4. Collect wipe sample
5. Monitor the sample
6. Place the swipe into scintillation vial
7. Seal the scintillation vial **securely**
8. Put all scintillation vial into one **POP** One swipe per scintillation vial
9. Seal with tape - **DO NOT LICK**

At the end of each day

Monitor all work surfaces.

Remember that nickel-63 is a low energy *beta* emitter and fielded radiac equipment will only detect gross contamination.

Place all suspected contaminated waste material into a properly

M43A1 Wipe Test

- Looking for americium-241 contamination caused by deterioration of the source in the detector module
  - Contamination will first ap… the air exits the detector m…
- Annual testing required b… ACALA SOUM 95-04
- Must be tested prior to transfer

Materials:

- Kraft paper
- Rubber gloves
- Cotton tipped applicator
- Large envelope
- Small envelope
- Radiac meter
  - AN/PDR-54, AN/PDR-56, or AN/PDR-77

Procedures:

1. Cover the work area with Kraft paper
2. Write information on small envelope

Procedures:

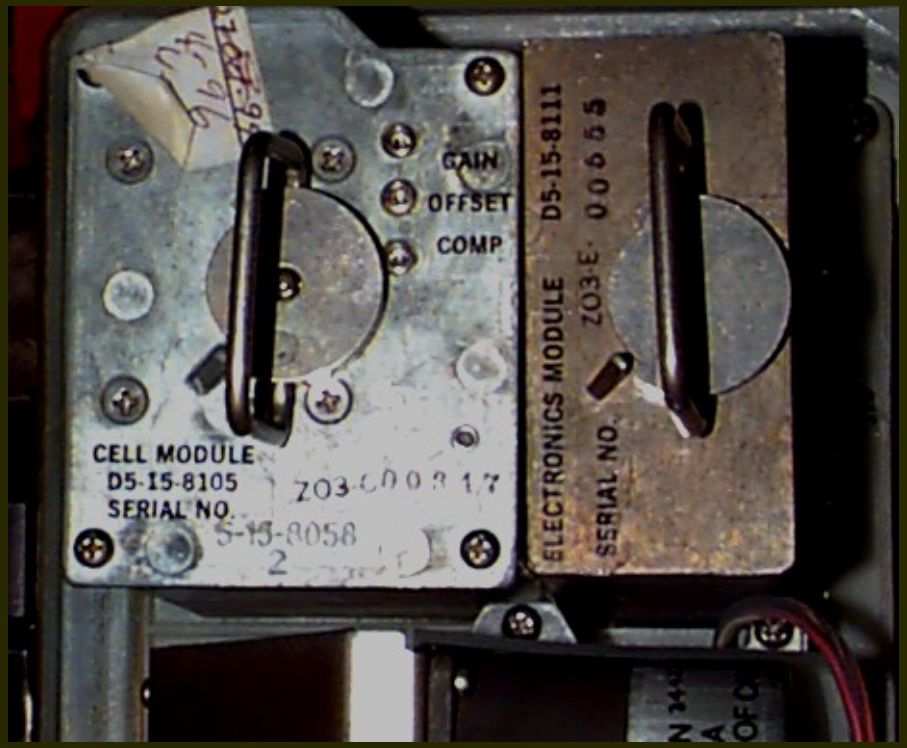
1. Cover the work area with Kraft paper
2. Write information on small envelope

Name: SGT Joe Schmoe
Installation: C Co 95 Chem
Camp Swampy, GA
Phone: (999) 555-0000
M43A1 Serial #: XXX-X-00000
Detector Module Seriel #: YYY-Y-00000

MAIL ROOM - DO NOT OPEN

Procedures:

1. Cover the work area with Kraft paper
2. Write information on small envelope

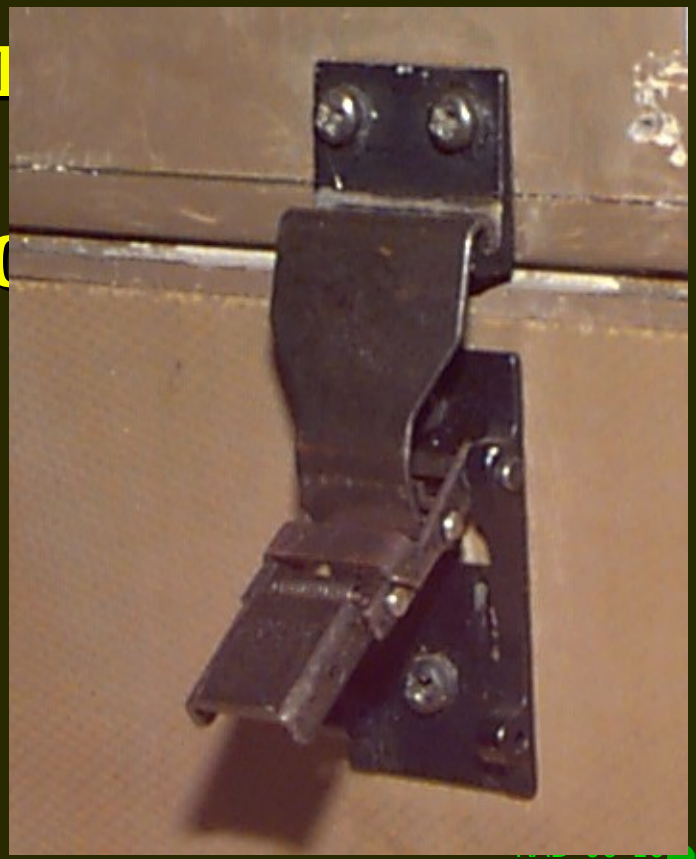


Procedures:

1. Cover the work area with Kraft paper
2. Write information on small envelope
3. Put on rubber gloves

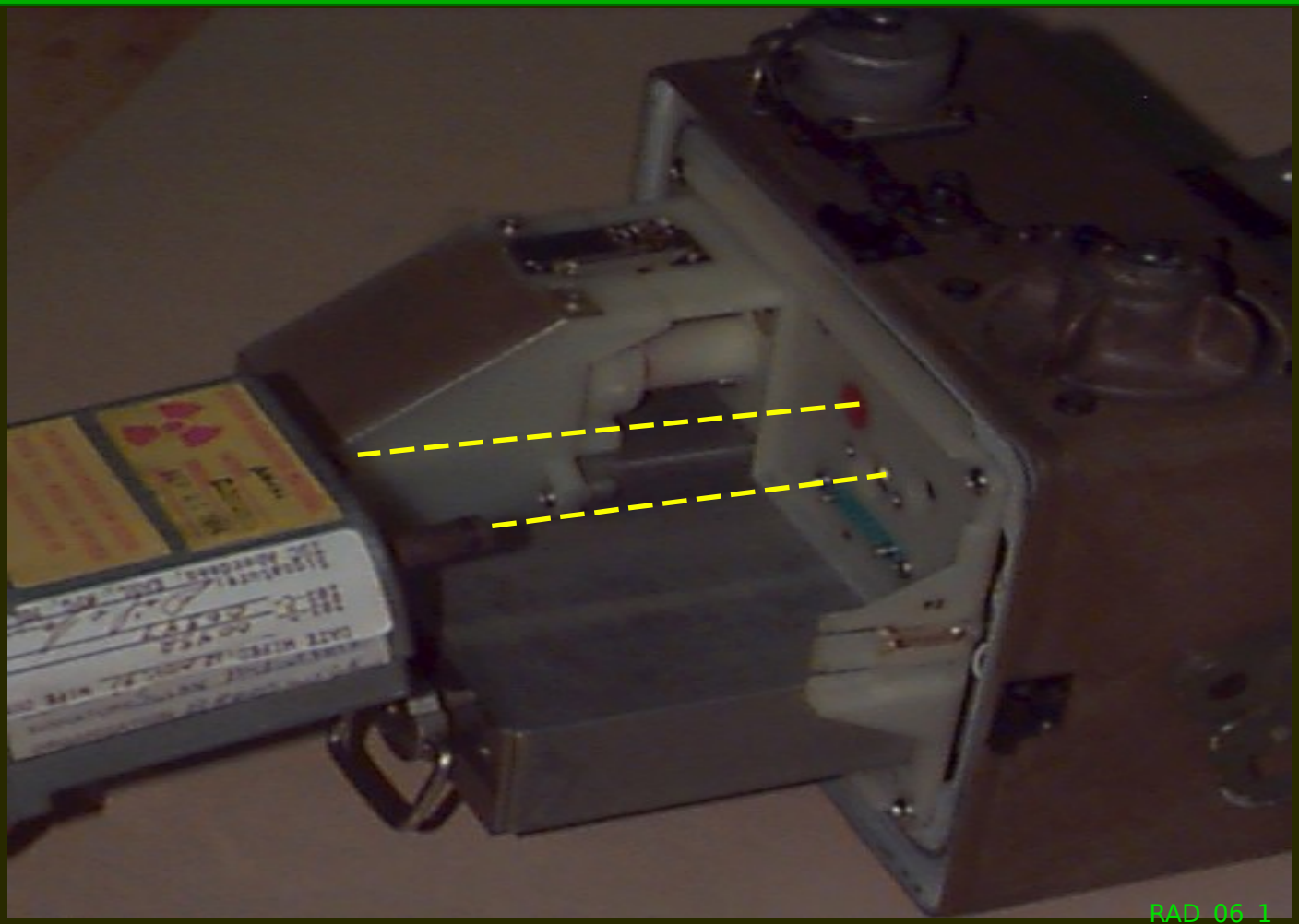
Procedures:

1. Cover the work area with Kraft paper
2. Write information envelope
3. Put on rubber glo



Procedures:

Procedures:



Procedures:

1. Cover the work area with Kraft paper
2. Write information on small envelope
3. Put on rubber gloves
4. Wipe the red seal in the chassis assy.

RAD_06_16

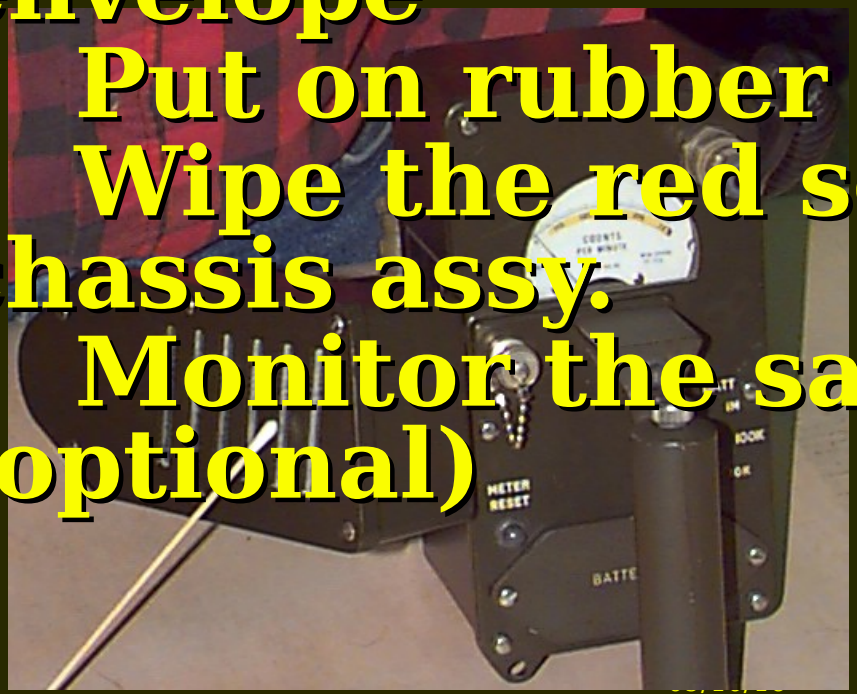
Procedures:

1. Cover the work area with Kraft paper
2. Write information on small envelope
3. Put on rubber gloves
4. Wipe the red seal in the chassis assy.

RAD_06_16

Procedures:

1. Cover the work area with Kraft paper
2. Write information on small envelope
3. Put on rubber gloves
4. Wipe the red seal in the chassis assy.
5. Monitor the sample (optional)



Procedures:

1. Cover the work area with Kraft paper
2. Write information on small envelope
3. Put on rubber gloves
4. Wipe the red seal in the chassis assy.
5. Monitor the sample (optional)
6. Place the swipe into small envelope
7. Seal with tape
8. Put all small envelopes into large one
9. Seal with tape

5. Monitor the sample (optional)
6. Place the swipe into small envelope
7. Seal with tape

DO NOT LICK

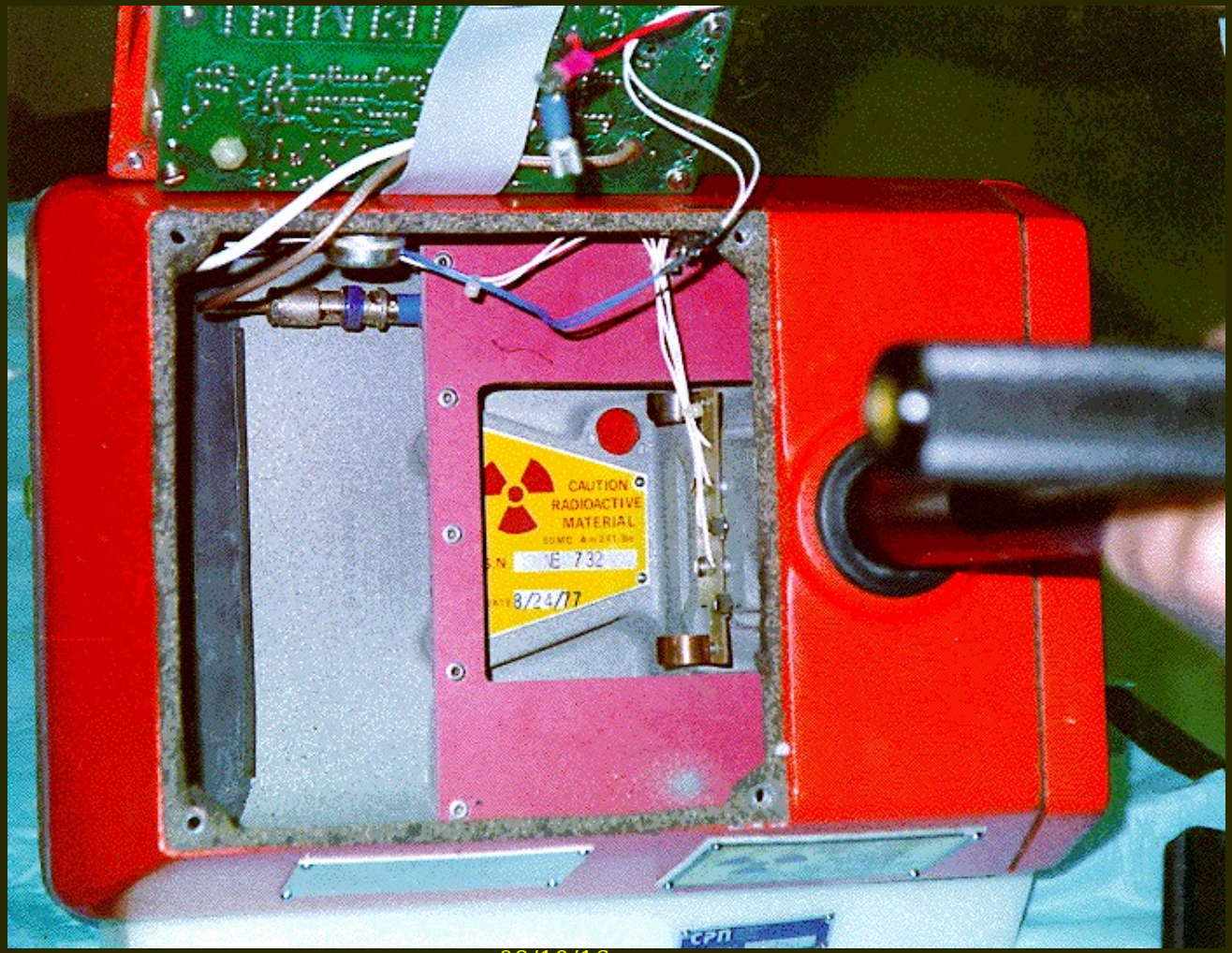
DO NOT LICK

At the end of each day

Monitor all work surfaces. Remember that americium-241 is an *alpha* emitter and can only be detected with the use of the proper *alpha* probe.

Place all suspected contaminated waste material into a properly

MC-1
Americium/Beryllium



MC-1 Cesium